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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/615,825 | 07/10/2003 | Yasuhito Koike | XA--9901 | 8350 |
| 181 | 7590 | 08/23/2004 | EXAMINER | |
| MILES & STOCKBRIDGE PC 1751 PINNACLE DRIVE SUITE 500 MCLEAN, VA 22102-3833 | | | TORRES, MELANIE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3683 | |

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,825

Applicant(s)

KOIKE ET AL.

Examiner

Melanie Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7-11 and 16-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the reply filed on May 19, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 7-11 and 16-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims are rejected under 35 U.S.C. 102(b) as being anticipated by Shields.

Re claim 1, Shields discloses a brake drum (13) for a wet-type band brake having a large number of grooves (14) substantially along the circumferential direction on a slide contact surface with the brake band, wherein each adjacent grooves are smoothly linked to each other through a substantially convex arcuate cross sectional-portion. (Figure 3)

Re claims 3 and 4, Shields does not disclose wherein said grooves are formed by cutting work while said substantially convex arcuate cross sectional-portion is formed by rolling process or wherein said grooves and said substantially convex arcuate cross sectional portion are both formed by rolling process. Applicant's claim appears to be a product by process. Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP 2113.

4. Claims 2, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Wakisaka et al.

Re claim 2, Wakisaka et al. discloses a brake drum (20) for a wet-type band brake having a large number of grooves (21) substantially along the circumferential direction on a slide contact surface with the brake band, wherein: a land is formed between each adjacent grooves and said land and said grooves are smoothly linked to each other through a substantially convex arcuate cross sectional-portion. (Figures 12 and 14)

Re claims 12 and 14, Wakisaka et al. does not disclose wherein said grooves are formed by cutting work while said substantially convex arcuate cross sectional-portion is formed by rolling process or wherein said grooves and said substantially convex arcuate cross sectional portion are both formed by rolling process. Applicant's claim appears to be a product by process. Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP 2113.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shields.

Re claims 5 and 6, Shields does not teach wherein said grooves are formed at a pitch of 0.05mm to 0.3mm in a dimensional range of 0.5mm to 50 μ m in depth and of 0.05mm to 0.3mm in width or wherein said grooves are formed at a pitch of 0.05mm to 0.3mm range of 0.5 μ m to 50 μ m in depth and of 0.05mm to 0.3mm in width. It would have been an obvious matter of design choice to modify Shields to have the dimensions above, since applicant has not disclosed that the dimensions solve any stated problem or are for any particular purpose and it appears that the invention would perform equally well with a variety of dimensions.

7. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakisaka et al.

Re claims 13 and 15 Wakisaka et al. does not teach wherein said grooves are formed at a pitch of 0.05mm to 0.3mm in a dimensional range of 0.5mm to 50 μ m in depth and of 0.05mm to 0.3mm in width or wherein said grooves are formed at a pitch

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of 0.05mm to 0.3mm range of 0.5 μ m to 50 μ m in depth and of 0.05mm to 0.3mm in width.

It would have been an obvious matter of design choice to modify Wakisaka et al. to have the dimensions above, since applicant has not disclosed that the dimensions solve any stated problem or are for any particular purpose and it appears that the invention would perform equally well with a variety of dimensions.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

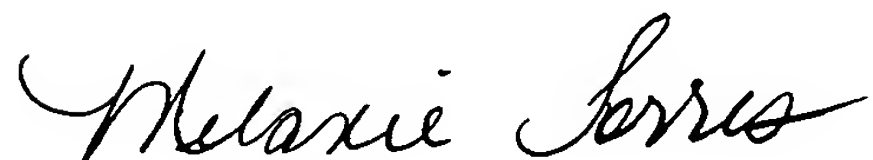
Breeze, Cautley, Schrader et al., and Le Jeune teach brake drums.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Torres whose telephone number is (703)305-0293. The examiner can normally be reached on Monday-Friday, 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on (703)308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, reading "Melaxie Torres".

MT

August 18, 2004